
Citation:

Lampadarios, E (2017) Brexit and the UK chemical supply chain: A commentary on potential effects. Journal of Business Chemistry. ISSN 1613-9615 DOI: <https://doi.org/10.17879/20249617022>

Link to Leeds Beckett Repository record:

<https://eprints.leedsbeckett.ac.uk/id/eprint/3662/>

Document Version:

Article (Accepted Version)

The aim of the Leeds Beckett Repository is to provide open access to our research, as required by funder policies and permitted by publishers and copyright law.

The Leeds Beckett repository holds a wide range of publications, each of which has been checked for copyright and the relevant embargo period has been applied by the Research Services team.

We operate on a standard take-down policy. If you are the author or publisher of an output and you would like it removed from the repository, please [contact us](#) and we will investigate on a case-by-case basis.

Each thesis in the repository has been cleared where necessary by the author for third party copyright. If you would like a thesis to be removed from the repository or believe there is an issue with copyright, please contact us on openaccess@leedsbeckett.ac.uk and we will investigate on a case-by-case basis.

Brexit and the UK chemical supply chain:

A commentary on potential effects

Author details:

Dr Evripidis Lampadarios PhD, MSc, MA, FInstSMM, MISBE

Associate Lecturer in Strategy

Leeds Business School,

Leeds Beckett University,

The Rose Bowl,

1 Portland Gate, LS1 3HB, Leeds, West Yorkshire

Email: e.lampadarios@leedsbeckett.ac.uk

Mob: 0777 614 6471

Abstract

Businesses assume that in the developed countries, political stability is guaranteed. However, the result of the British referendum (June 2016) has shiftily altered the political arena and introduced an era of uncertainty and volatility, referred to as 'Brexit'. The UK chemical industry and its supply chain need to respond and changes might be in order. The routes to market could well be changing and there appears to be a shift towards chemical distribution; particularly towards official and appointed chemical distributors rather than direct business and/or non-exclusive distributors/agents. The newly-emerging market conditions also demand flexibility and adaptability, pointing in the direction of small businesses (SMEs) rather than their larger counterparts. Nevertheless, as these are the early stages of this process/phenomenon, it is difficult to ascertain whether the initial effects would be of a permanent or temporary nature until a state of equilibrium is reached in the market.

1. Introduction

Without a doubt, the political environment affects and shapes business strategy and clearly impinges on business activity. No company, national or international, large or small, can conduct its business without taking into account the influence of the political environment in which it operates. The nature of this system, its institutions and processes, government involvement in the working of the economy and its attempts to influence market structure and behaviour -for instance laws and regulations, tax policies, financial support and loans etc.- but most importantly government decisions have a significant impact on short and long term planning and performance. With political stability seen as a precondition for high industrialisation, innovation and business success, recent events in the European political arena have altered the landscape and increased the level of volatility and uncertainty. The results of the British referendum (June 2016) have triggered an unprecedented set of events, addressed under the 'Brexit' umbrella, leading Europe and the UK into uncharted territory alongside with all businesses based and/or operating in this geographical region.

An industry that is most likely to be affected by the above aforementioned changes is the chemical and chemical distribution. With this being a significant contributor to the UK economy and employment, the potential effect(s) of Brexit on the UK chemical supply chain become of particular interest and are worth discussing in greater extend. Regarding the industry itself, despite the fact that it is well-established and mature, it appears to be highly fragmented and therefore still subject to strong consolidation trends and high mergers and acquisitions (M&A) activity. The ever-increasing environmental (climate change, reduction in emissions, sustainable development, green chemistry requirements, corporate social responsibility) and regulatory (REACH, Classification, Labelling and Packaging of substances and mixtures (CLP), Biocidal Products Regulation (BPR), EU competition and information exchanging rules) pressures further contribute to the dynamicity of the market. Globalisation and advancements in technology and logistics have already had a profound effect on the supply chain. Increased direct global competition, mainly from Europe and Asia, has caused a shift in the manufacturing focus and investment, with the UK now moving towards high value, niche, technologically advanced applications and markets and away from commodities. Inevitably, the manufacturing centre has been gradually but steadily moving outside the UK, with only a few large manufacturers remaining alongside a number of smaller, but with strong presence, converters. Accordingly, traditional markets, for instance Household/I&I, Metalworking and Lubricants, Textile, Leather and Paper, Agrochemicals, Coatings, Plastics, Food, Water treatment, Oilfield and Construction have been in decline in recent years, mainly satisfying 'internal' requirements, while Pharmaceuticals, Nutraceuticals, Aerospace, Electronics and Personal Care segments have exhibited

growth and continuous development. It appears that even in traditional markets the focus is on specialised and niche applications. Consequently, for the time being, research, product development and innovation remain relatively strong with several R&D centres located in the country. The North East, North West, Yorkshire, Humber and Scotland regions continue to be the main manufacturing areas. The medium to long-term trend appears to be a decline in the manufacture of large volume-low margin chemicals and specialisation within the manufacturing sector (Chemistry Growth Strategy Group, 2014). This is going to be accompanied by an increase in the import of bulk chemicals and fuels and associated storage and distribution (Health and Safety Executive, 2014).

The underlying principle of this commentary is to discuss the potential effect(s) of Brexit on the UK chemical supply chain with regards to the different routes to market and the size of the enterprises (SMEs and LMNEs) operating within. At this point and since neither actual research has taken place to evaluate the phenomenon yet, nor the event has manifested itself in its full extend (Article 50 has not been activated yet), the suggested effects remain hypothetical in nature, based on experience and educated interpretations of market indications.

2. UK Chemicals distribution supply chain

Chemical manufacturers have traditionally distributed their own products and direct supply continues to account for around 90% of the total global distribution, leaving a 10% share for third-party distributors (Boston Consulting Group, 2010; IMAP, 2015). Direct supply is expected to continue for large end-users, accounting for the bulk of producers' output (Angermann M&A International, 2015). However, third-party distribution remains a vital link in the supply chain process as it offers a more flexible, cost-saving and value-adding way to increase market reach, especially to smaller customers (Grand View Research, 2013). As such, in the chemical industry, there is a very clear distinction between direct (including own distribution arm/subsidiary) and third-party supply, incorporating official (exclusive/appointed) distributors, agents (these do not take ownership of the product) and trading companies (these do not provide value added services) (IMAP, 2015). Specifically for the UK chemical industry, Chemagility (2008) identifies the typical supply chain arrangement and distinguishes the market entry strategies for overseas chemical producers into: (i) indirect export, (ii) direct export and (iii) local presence. Indirect export involves the use of chemical traders and export houses. Local presence refers to local production through direct presence or local ownership. Direct export incorporates: (i) direct sales from plant to customer (ii) the presence of a local office and/or subsidiary (own distribution arm), (iii) agents and (iv) distributors (appointed, exclusive and non-appointed).

Based on above and with respect to the UK chemicals supply chain, five (5) routes to market have been identified. These are presented in Figure 1 below. In more detail, manufacturers/converters may choose to promote their products either **Direct** -for instance Croda Chemicals with a policy not to use distributors- or through their **own distribution** arm to the end customer; for instance the case of BASF and BTC, where the latter is part of the same group but acts as a distributors of the former. In this case, all sales, marketing and logistical activities are undertaken and managed by the manufacturer/converter.

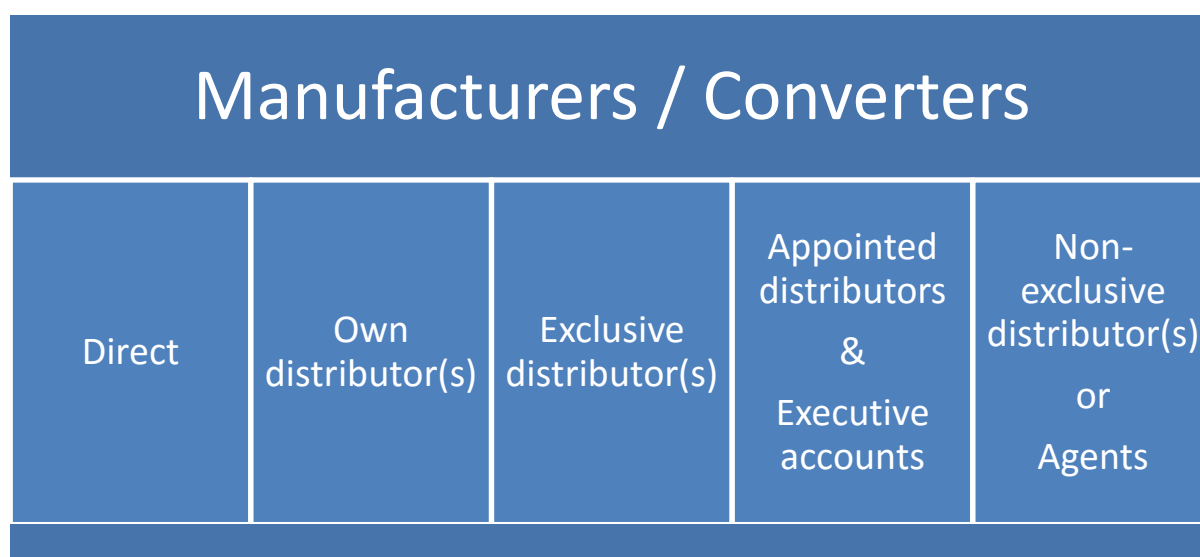
The only other way to reach customers and markets is through a third party distributor. Depending on the strength of the relationship (Chemagility, 2015 and 2008), these can be distinguished in:

(i) **Exclusive**: all business must go through distributors-partners. There is often a formal, long-term agreement between the distributor and the chemical manufacturer - the 'Principal'. These buy and sell chemicals from producers and take title to the goods, responsibility for stocking and warehousing, before selling the products on to their customers under their own or their principal's brand name.

(ii) **Appointed**: same as exclusive but with presence of executive accounts where the distributor is excluded from selling to, for instance Sasol and Shell Chemicals, and

(iii) **Non-exclusive distributors** operating under a traditional buy-sell arrangement, where the relationship is very loose and there is little commitment or loyalty from either side or **Agents**. The latter do not take title to or stock goods, but receive a commission for their contribution in helping a manufacturer complete a sale. 'Chemical trader' is another term used to describe this type of distributors.as they are involved with the purchase and resale of commodities and buy from the producer or supplier offering them the best deal at the time. There is no close, long-term relationship with the manufacturer and most rely on their suppliers' logistics to serve their customers.

Figure 1: Routes to market



Considering the market conditions -globalisation and international trade, the market entry of Asian producers- and gradual decline in the manufacturing activity -reduced product and service offerings and downsizing-, the strong presence and higher utilisation of chemical distributors in the UK chemicals supply chain was to be expected and this will, more likely, continue to be the case in the near future. Manufacturers/converters need to deal with environmental and regulatory pressures, increased competition through globalisation, high mergers and acquisitions activity, a need for innovation and raw materials availability and costs. Simultaneously, they are required to supply a wide range of products in differing quantities to a hugely diverse customer base. The varied degree of customer fragmentation, the strong presence of small customers in many markets and the differences in the composition of the customer by industry are also a particular challenge as these require the infrastructure and processes to handle low volumes or a high diversity of products. Local presence is many times a necessity to appreciate and address the individuality of each market.

Distribution –against direct supply- comes as a business ‘phenomenon’ that reduces the complexity of product distribution and customer management and becomes a means to mitigate costs and trade-related risks. Chemical distributors alleviate environmental and regulatory pressures and minimise logistical complications. They increase market reach into smaller customers (with very specific needs on technical, regulatory and logistical level) and niche, specialities industries while utilising local knowledge and providing critical market information and feedback. Above all though, they support manufacturers/converters concentrate on what they do best; manufacturing. In the recent years though, the distinction between ‘manufacturers’ and ‘distributors’ has become increasingly blurred, as an extensive range of services and products are increasingly put together to

provide differentiated value-adding solutions (i.e. custom blending, bulk and non-bulk repackaging, managing customer inventories, imparting technical training and support).

With regards to the UK chemical distribution market, which is the focus of this commentary, companies mainly consist of large enterprises and multinationals (LMNEs) accounting for about 75% of the total market value and a very interesting mix of small and medium-sized enterprises (SMEs) holding the remaining 25% share (Chemagility, 2015). SMEs are enterprises that employ fewer than 250 people and have an annual turnover not exceeding EUR 50 million and/or an annual balance sheet total not exceeding EUR 43 million (European Union, 2003).

At this point, a distinction must be made between LMNEs and SMEs as their differing 'modus operandi' is to become a point of differentiation in the Brexit era. In fact, SMEs have several features that distinguish them from larger firms that could potentially be a strong point of differentiation and a source of competitive advantage under the current market conditions. The absence of complex formal management structures (mostly flat) and centralised decision-making (characteristic dominance of owner-managers in decision-making) combined with the lack of internal labour markets, provide SMEs with the distinct advantage of flexibility. This enables them to respond quickly and effectively to changes in the business environment and adapt to market trends. Despite the fact that smaller businesses have a limited customer base and fewer resources (financial, human, physical) available, they manage to maintain a distinct closeness to their customers, identifying needs and requirements in 'real' time. Consequently, they are in a better position to accommodate and service smaller customers and niche, specialised markets. Similarly, the absence of formality in the internal and external information and communication systems further improves response times and problem-solving, making SMEs more responsive than their larger counterparts. Even the fact that they tend to concentrate on current performance rather than taking a strategic focus and often engage in management 'fire-fighting', implies a high level of flexibility, adaptability and responsiveness to market changes.

3. The 'Brexit' effect

Nevertheless, following the results of the British referendum earlier last summer, the above described working model might easily change (please refer to figure 1). Even though Article 50 has not been activated, so officially the 'Brexit' era has not set upon the markets yet, reverberations have been felt. Despite continuous speculations and scenarios on the potential effects, so far very few aspects have become visible to the public and industry alike. Uncertainty appears to be the only

remaining constant as the UK moves into uncharted territory. To that end, 'Brexit' needs to be investigated more as a phenomenon over a period of time rather than a singular event. However, it is worth noting that, as these are the early stages of this process/phenomenon, it is difficult to ascertain whether the initial effects, as argued in this commentary, would be of a permanent or temporary nature until a state of equilibrium is reached in the market.

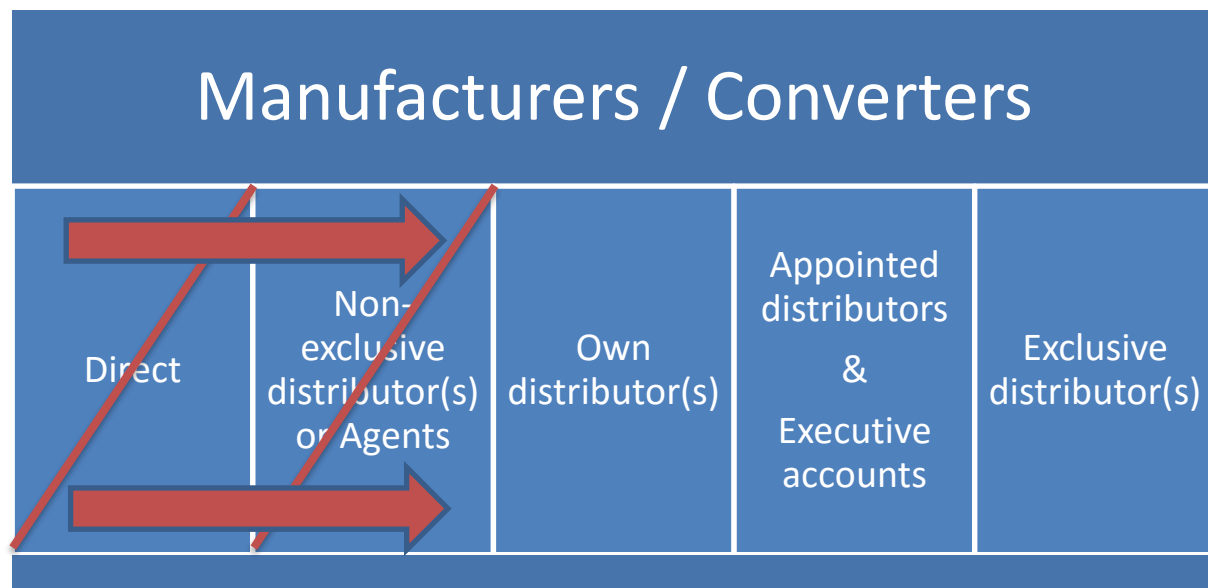
Regarding the UK chemicals supply chain, speculations and scenarios (but not actual reactions) have already started causing some destabilisation (definitely some increased strategizing activity) that could potentially inflict change on the routes to market. In fact, it is the continuing uncertainty that has been acting as a catalyst for these changes. With the markets being uncertain about when (or even if) article 50 will be activated, there are speculations about the new landscape, for instance the new trade agreements between the UK and EU/ROW, existing regulations (REACH, BPR, CLP) and rules of conducting business, for example information exchange, competition laws and local representation. From a manufacturer/converter's point of view, it would be extremely difficult to strategize under these volatile conditions and with no clear strategy in place, the risk (and potentially the cost) of doing direct business in the UK could increase. During times of uncertainty and increased risk, distributors appear more appealing against direct supply as, due to local presence and market knowledge, are better equipped to deal with uncertainty and can become an effective means to reduce and/or mitigate risk. They are also an effective way of keeping costs down for larger manufacturers in terms of human and physical resources and capital expenditure; let alone coping with an ever increasing level of market fragmentation. A further important 'push' factor towards distribution would be the distributors' information sharing and market intelligence input, for instance market conditions, key contemporary and future trends, opportunities, competition etc. as well as their contribution towards demand forecasting and planning, both invaluable assets to manufacturers' operations.

Therefore, there are clear indications that 'Brexit' could not only affect the routes to market but potentially shift the focus towards chemical distribution (as presented in Figure 2). Conversely, in times of hardship, a strong relationship and commitment (and a good reputation for the matter) on both sides is required, putting the non-exclusive distributors and agents at a disadvantage. The focus might well be on exclusive, appointed and own distributors who, under formal distribution agreements and partnerships, would be called upon to manage uncertainty, change and deal with complications, bureaucracy and risks for the foreseeable future. These would put in place the appropriate set of policies and procedures, adjusted to local market needs and requirements, to

ensure proper management of the suppliers' products up to the end-users. Similarly, they could act as official legal representatives in the UK market, addressing legislative requirements so manufacturers/converters are able to focus on their core competences mainly manufacturing, logistics, research and product development and process improvements.

At this point, it is worth noting that even though current conditions (Brexit has been voted for but article 50 has not been activated yet) seem to favour and 'push' towards exclusive, appointed and own distributors, it does not necessarily mean that direct business would not be a viable option after the exit clause is activated. The main argument remains that the former appear to be a more sustainable and cost-effective route to manage uncertainty, risk and high market volatility against the later where strategizing and resource commitment is essential.

Figure 2: Routes to market – The 'Brexit' effect



Considering the fact that the UK chemicals industry remains dynamic in the least, price sensitive, highly fragmented and continues to move towards more specialised, technically focused, niche applications, it is becoming apparent that SMEs might be a better supply position than LMNEs. Thus, it appears that the inherent characteristics of smaller businesses might be more suited for the current market conditions, providing them with a distinct advantage. Whether this advantage can be sustained in the long term -considering that there will be a reaction from larger/multinational companies- remains to be seen. At the same time, Brexit has significantly increased uncertainty and volatility in the market place, conditions that not only favour distribution in general but also require the flexibility, adaptability and quick responses that only smaller businesses can offer. As such,

chemical distribution SMEs, due to their size, flexible management structure, informal strategy and quick decision-making should be able to respond more positively and timely to these conditions.

Overall, both Brexit and the current industry conditions seem to be favouring SMEs as a route to the UK chemicals market. Owners/managers would need to capitalise on the opportunity and adapt to the newly-emerging landscape. An improvement on existing business practices is required with focus on performance, increasing competitiveness and ensuring business continuity. It is also becoming imperative for manufacturers/converters to make informed decisions regarding the assessment and selection of small chemical distributors to access the UK market. Likewise, various stakeholders need to focus on improving strategy formulation and decision-making process in order to support chemical distribution SMEs. Further research in the UK chemical distribution industry during the Brexit era is required to follow upon existing research (for instance Lampadarios, 2016a, b, c and d).

An equally interesting aspect of Brexit that is worth investigating and discussing in the future -as it falls slightly outside the scope of this commentary but is most certainly related- is the effect it would potentially have on globalisation. With globalisation and international trade being key drivers for the chemical distribution industry in the recent years, a vote to leave the EU –thus, in a way, rejecting trade openness and labour movements-, is causing serious concerns. In fact, Brexit is viewed as a major pullback or even a rejection of globalisation; an event that has been feeding fears of de-globalisation alongside the results of the US presidential elections and subsequent US policy changes (for example trade and labour). In the first instance, the increasing de-globalisation pressures will most likely reinforce the importance of local ‘players’ (manufacturers and distributors alike) in their home markets but potentially ‘dampen’ their plans for international expansion. Further research is needed as the event unfolds itself.

4. Conclusion

Brexit, more a phenomenon than a singular event, has the capacity to affect the routes to the UK chemicals market. Continuous uncertainty and increased volatility could potentially cause a shift in the supply chain towards official and appointed chemical distributors rather than direct business and/or non-exclusive distributors/agents. This could be due to the fact that chemical distribution is seen by manufacturers as a way to reduce uncertainty and mitigate risks while they concentrate on core competences, for instance manufacturing, research and development, logistics etc.

Conversely, chemical distributors in the UK mainly comprise of large enterprises/multinationals (LMNEs) with 75% market share and small businesses (SMEs) holding the remaining 25%. However, the inherent characteristics of the latter -with the most important ones being flexibility, adaptability and closeness to customers- appear to provide them with an advantage not only under the current market conditions -characterised by high fragmentation, product specialisation, reduction of manufacturing base and price sensitivity- but more so under the newly-emerging landscape under the Brexit effect, one of increased volatility and uncertainty. Based on the above, Table 1 (illustrated below) provides a summary of the conclusions.

Table 1: Summary of conclusions

	Current market conditions	Reasons for Changes	Brexit effect
Routes to market	<ul style="list-style-type: none"> • Direct • Own distributors • Exclusive distributor(s) • Appointed distributors & Executive accounts • Non-exclusive distributor(s) or Agents 	<ul style="list-style-type: none"> • Increased uncertainty, volatility and risk • Reducing costs of resources and investment • Change in trade agreements • Change in rules of conducting business • Increased commitment required • Need for official legal representatives 	<ul style="list-style-type: none"> • Own distributors • Exclusive distributor(s) • Appointed distributors & Executive accounts
Size of Enterprises	<ul style="list-style-type: none"> • 75% Large and Multinationals • 25% SMEs 	<ul style="list-style-type: none"> • Mitigating risk and responsibility • Requirement for local presence and market knowledge • High fragmentation • Move towards niche applications • Adaptability / Swift decision-making required • Flexible management structures required 	Shift towards SMEs (unclear to what extend until equilibrium reached)

5. References

Angermann M&A International (2015): Chemical Distribution – Industry and M&A Outlook, available at http://www.angermann-ma.de/fileadmin/redaktion/downloads/publikationen_und_broschueren/Chemiereport_2015.pdf, accessed 2 March 2017.

Boston Consulting Group (BCG) (2010): *Opportunities in Chemical Distribution*, available at <https://www.bcg.com/documents/file37956.pdf>, accessed 2 March 2017.

Chemagility (2008): *United Kingdom Chemical Distribution Report 2008*, Chemagility, Surrey.

Chemagility (2015): *United Kingdom Chemical Distribution Report 2015*, Chemagility, Surrey.

Chemistry Growth Strategy Group (2014): *Strategy for Delivering Chemistry-Fuelled Growth of the UK Economy*, Department for Business innovation and Skills, available at http://www.chemicalsnorthwest.org.uk/downloads/news/growth_strategy_final.pdf/ , accessed 3 March 2017.

European Union (2003b): Commission Recommendation of 6 May 2003 Concerning the Definition of Micro, Small and Medium-sized Enterprises, *The Official Journal*, **124** (1), pp. 36-41.

Grand View Research (2013): *Chemical Distribution Market Analysis, Market Size, Application Analysis, Regional Outlook, Competitive Strategies and Forecasts, 2014 To 2020*, Available at: <http://www.grandviewresearch.com/industry-analysis/chemical-distribution-market>, accessed 3 March 2017.

Health and Safety Executive (HSE) (2014): *Chemical Sector Strategy 2012-2015*, available at <http://www.hse.gov.uk/aboutus/strategiesandplans/sector-strategies/chemicals.htm>, accessed 20 March 2014.

IMAP (2015): *A View on the Chemical and Chemical Distribution Market*, available at <http://dbens.nl/wp-content/uploads/A-View-on-the-Chemical-and-Chemical-Distribution-Market.pdf>, accessed 2 March 2017.

Lampadarios, E. (2016a): Success factors for SMEs in the European chemical distribution industry, *Journal of Research in Business, Economics and Management*, **6** (3), pp. 941-952.

Lampadarios, E. (2016b): Critical success factors for SMEs: an empirical study in the UK chemical distribution industry, *International Journal of Business and Management*, **11** (7), pp. 67-82.

Lampadarios, E. (2016c): What future for SME distributors?, *Speciality Chemicals magazine*, March, pp. 36-38.

Lampadarios, E. (2016d): Brexit's effect on the surfactant supply chain: a distributor's perspective, 5th *ICIS European Surfactants conference*, 15th-16th September, Berlin, Germany.